

**Solution Manual for Experience Human Development 13th  
Edition by Papalia Martorell  
ISBN 0077861841 9780077861841**

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## **Chapter 2: Theory and Research**

### **Introduction**

The focus of Chapter 2 is to demonstrate the integral nature of theory and research. This chapter includes an introduction of some of the most prominent theories about human development and discusses how developmental scientists study people, including what research methods they use and what ethical standards govern their work.

The chapter opens with a discussion of two theoretical issues: whether development is active or reactive, and whether development is continuous or discontinuous. The authors then summarize the advantages and critiques of five theories of human development:

- psychoanalytic
- learning
- cognitive
- contextual
- evolutionary/sociobiological

The second half of the chapter focuses on the scientific method and research. It begins with an explanation of differences in quantitative and qualitative research methods. Behavioral and performance measures are discussed, as well as ethnographic studies. The authors highlight sampling methods and data collection techniques, as well as some basic designs used in developmental research:

- case studies
- ethnographic studies

- correlational studies
- experimental studies

The chapter concludes with a discussion of longitudinal, cross-sectional, and sequential study designs, followed by an examination of ethical issues researchers encounter.

## **Learning Objectives**

1. Describe the purpose of a theory in research and two theoretical issues on which developmental scientists differ.
2. Summarize the main theories of human development.
3. Describe the methods developmental researchers use to collect data and the advantages and disadvantages of each.
4. Explain ethical guidelines for researchers who study people.

## The Total Teaching Package Outline: Chapter 2 Theory and Research

Heading	Resources
<b>Window on the World: Purposes of Cross-Cultural Research</b>	Activity: 2.4
<b>Did You Know ... ?</b>	
<b>Basic Theoretical Issues</b>	Checkpoint: 2-1 Learning Objective 2.1 Critical Thinking Exercise: 2.4
Issue 1: Is Development Active or Reactive?	Lecture Opener: 2.1
Issue 2: Is Development Continuous, or Discontinuous?	Checkpoint: 2-2; 2-3, 2-4
<b>Theoretical Perspectives</b>	Learning Objective 2.1 Critical Thinking Exercise: 2.1 Activities: 2.1, 2.2
Perspective 1: Psychoanalytic	Checkpoint: 2-5, 2-6, 2-7 Essay Question: 2.4
Perspective 2: Learning	Checkpoint: 2-8, 2-9, 2-10, 2-11 Lecture Opener: 2.2, 2.5
Perspective 3: Cognitive	Checkpoint: 2-12 Activity: 2.5
Perspective 4: Contextual	Checkpoint: 2-13, 2-14, 2-15, 2-16
Perspective 5: Evolutionary/Sociobiological	Checkpoint: 2-17, 2-18
A Shifting Balance	
<b>Research Methods</b>	Learning Objective 2.3 Lecture Opener: 2.3, 2.6 Critical Thinking Exercise: 2.2 Activity: 2.6 Essay Question: 2.1 Checkpoint: 2-19, 2-10 Connect: Research Methods for Studying Infants Connect: Challenges of Conducting Research on Adolescents
Sampling	Checkpoint: 2-21 Lecture Opener: 2.6
Forms of Data Collection	

Basic Research Designs	Checkpoint: 2-22, 2-23, 2-24, 2-25 Activity: 2.4 Essay Question: 2.2, 2.3
Developmental Research Designs	Checkpoint: 2-26
Ethics of Research	Learning Objective 2.4 Checkpoint: 2-27, 2-28 Lecture Opener: 2.4 Critical Thinking Exercise: 2.3 Activity: 2.3 Connect: <b>Ethical Issues in Studying Infants</b>

## Detailed Chapter Outline with Key Terms

### Chapter 2: Theory and Research

#### Window on the World: Purposes of Cross-Cultural Research

#### BASIC THEORETICAL ISSUES

- **Theory:** Coherent set of logically related concepts that seeks to organize, explain, and predict data.
- **Hypotheses:** Possible explanations for phenomena, used to predict the outcome of research.

#### Issue 1: Is Development Active or Reactive?

- *Tabula rasa:* Literally, a —blank slate.‖ Philosopher John Locke’s view that society influences the development of the child.
- **Mechanistic model:** Model that views development as a passive, predictable response to stimuli.
- **Organismic model:** Model that views development as internally initiated by an active organism, and as occurring in a sequence of qualitatively different stages.

#### Issue 2: Is Development Continuous or Discontinuous?

- **Quantitative change:** Changes in number or amount, such as the frequency with which a response is made.

- **Qualitative change:** Changes in kind or nature, implying that development occurs in a series of distinct stages or steps.

## THEORETICAL PERSPECTIVES

### Perspective 1: Psychoanalytic

- **Psychoanalytic perspective:** View of development as shaped by unconscious forces.

- *Psychoanalysis*: A therapeutic approach aimed at giving patients insight into unconscious emotional conflicts.

### *Sigmund Freud: Psychosexual Development*

- *Id*: Part of the personality that governs newborns, operating on the pleasure principle.
- *Pleasure principle*: The drive to seek immediate satisfaction of needs and desires.
- *Ego*: Part of the personality that represents reason, operating on the reality principle.
- *Reality principle*: Finding realistic ways to gratify the id.
- *Superego*: Part of the personality containing the conscience, incorporating socially approved behavior into the child's own value system.
- **Psychosexual development**: In Freudian theory, an unvarying sequence of stages of personality development during infancy, childhood, and adolescence, in which gratification shifts from the mouth to the anus and then to the genitals.
- **Fixation**: In psychoanalysis, an arrest in development that can show up in adult personality.
- **Oral stage**: Stage in psychosexual development in which feeding is the main source of sensual pleasure.
- **Anal stage**: Stage in psychosexual development in which the chief source of pleasure is moving the bowels.
- **Phallic stage**: Stage in psychosexual development in which boys develop sexual attachment to their mothers and girls to their fathers, with aggressive urges toward the same-sex parent.
- **Latency stage**: Stage in psychosexual development in which the child is sexually calm, and becomes socialized, develops skills, and learns about self and society.
- **Genital stage**: Stage in psychosexual development which lasts throughout adulthood, in which repressed sexual urges resurface to flow in socially approved channels.

### *Erik Erikson: Psychosocial Development*

- **Psychosocial development**: The socially and culturally influenced process of development of the ego, or self. Eight stages.
- *Crisis*: Major psychological theme that is particularly important at that time and will remain an issue to some degree throughout the rest of life.
- *Basic trust versus basic mistrust*: Critical theme of infancy in which the virtue of hope is developed.

### Perspective 2: Learning

- **Learning perspective**: View of development that holds that changes in behavior result from experience or adaptation to the environment.

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- *Learning:* A long-lasting change in behavior based on experience or adaptation to the environment.

### *Behaviorism*

**Behaviorism:** Learning theory that emphasizes the predictable role of environment in causing observable behavior.

*Associative learning:* The formation of a mental link between two events.

#### Classical Conditioning

- **Classical conditioning:** Learning based on association of a stimulus that does not ordinarily elicit a response with another stimulus that does elicit the response.

#### Operant Conditioning

- **Operant conditioning:** Learning based on reinforcement or punishment.
- **Reinforcement:** In operant conditioning, a stimulus that encourages repetition of a desired behavior.
- **Punishment:** In operant conditioning, a stimulus that discourages repetition of a behavior.
- *Extinguished:* Term referring to the return of a behavior to its original, or baseline, level after removal of reinforcement.
- *Behavior modification:* Also called behavior therapy, it is the use of conditioning to gradually change behavior.

### *Social Learning (Social Cognitive) Theory*

- **Social learning theory:** Theory that behaviors are learned by observing and imitating models; also called social cognitive theory.
- **Reciprocal determinism:** Bandura's concept that the person acts on the world as the world acts on the person.
- **Observational learning (*modeling*):** Learning through watching the behavior of others.
- *Social cognitive theory:* Bandura's newest version of social learning theory in which the emphasis on cognitive response to perceptions is increased.
- **Self-efficacy:** A confidence that a person has the characteristics needed to succeed.

### Perspective 3: Cognitive

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- **Cognitive perspective:** View that thought processes are central to development.

### *Jean Piaget's Cognitive-Stage Theory*

- *Clinical method:* Technique combining observation with flexible questioning.
- **Organization:** The tendency to create increasingly complex cognitive structures (schemes).
- **Schemes:** Organized patterns of behavior that a person uses to act and think about a situation.
- **Adaptation:** How children handle new information in light of what they already know.
- **Assimilation:** Part of adaptation, taking in new information and incorporating into existing cognitive structures.
- **Accommodation:** Part of adaptation, changing one's cognitive structures to include new information.
- **Equilibration:** The constant striving for a stable balance in the shift from assimilation to accommodation.

### *Lev Vygotsky's Sociocultural Theory*

- **Sociocultural theory:** Focuses on the social and cultural processes that guide children's cognitive development.
- *Collaborative:* Vygotsky's view that children learn through social interaction.
- **Zone of proximal development (ZPD):** The gap between what children are already able to do and what they are not quite ready to accomplish by themselves.
- **Scaffolding:** The temporary support that parents, teachers, or others give a child in doing a task until the child can do it alone.

### *The Information-Processing Approach*

- **Information-processing approach:** Approach to the study of cognitive development by observing and analyzing the mental processes involved in perceiving and handling information.

#### *Computer-Based Models*

- *Computational models:* Flowcharts that analyze the specific steps people go through in gathering, storing, retrieving, and using information.

### Perspective 4: Contextual



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- **Contextual perspective:** View of development that sees the individual as inseparable from the social context.
- **Bioecological theory:** Bronfenbrenner's approach to understanding processes and contexts of human development.
- **Microsystem:** Bronfenbrenner's term for a setting in which a child interacts with others on an everyday, face-to-face basis.
- **Mesosystem:** Bronfenbrenner's term for linkages between two or more microsystems.
- **Exosystem:** Bronfenbrenner's term for linkages between two or more settings, one of which does not contain the child.
- **Macrosystem:** Bronfenbrenner's term for a society's overall cultural patterns.
- **Chronosystem:** Bronfenbrenner's term for effects of time on other developmental systems.

#### Perspective 5: Evolutionary/Sociobiological

- **Evolutionary/Sociobiological perspective:** View of human development that focuses on evolutionary and biological bases of social behavior.  
*Survival of the fittest:* Darwinian process in which the animal most capable of survival (the one with the most adaptable traits) survives to pass on its genes in offspring.  
*Natural selection:* Darwinian process in which the weak and those with maladaptive traits are removed from the gene pool, leaving only the healthiest and strongest to survive and continue the species.
- **Ethology:** Study of distinctive adaptive behaviors of species of animals that have evolved to increase survival of the species.
- **Evolutionary psychology:** Application of Darwinian principles of natural selection and survival of the fittest to individual behavior.

#### A Shifting Balance

#### RESEARCH METHODS

- **Quantitative research:** Research that focuses on —hard data and numerical or statistical measures.
- **Qualitative research:** Research that focuses on —soft data, such as subjective experiences, feelings, or beliefs.
- **Scientific method:** System of established principles and processes of scientific inquiry. The usual steps in the method are:

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- - *identifying a problem* to be studied ○
  - formulating hypotheses* to be tested by research ○
  - collecting data*
  - *analyzing the data* to determine whether or not they support the hypothesis ○
  - forming tentative conclusions*
  - *disseminating findings* so that other observers can check, learn from, analyze, repeat, and build on the results Sampling
- *Population:* A group to whom the findings in research may apply.
- **Sample:** Group of participants chosen to represent the entire population under study.
- *Generalized:* Application of results from a sample study to the population as a whole.
- **Random selection:** Method of selecting participants in a study so that each person in a population has an equal and independent chance of being chosen.

### Forms of Data Collection

#### *Self-Reports: Diaries, Visual Techniques , Interviews, Questionnaires*

- *Diary:* A log or record of activities.
- *Parental self-reports:* A log or record of children's activities, kept by the parents of young children.
- Interview:* Method in which researchers, either face to face or on the telephone, ask questions about attitudes, opinions, or behavior.
- Questionnaire:* Printed questions that participants fill out and return.

#### *Naturalistic and Laboratory Observation*

- **Naturalistic observation:** Research method in which behavior is studied in natural settings without intervention or manipulation.
- **Laboratory observation:** Research method in which all participants are observed under the same controlled conditions.
- *Observer bias:* The researcher's tendency to interpret data to fit expectations or to emphasize some aspects and minimize others.

#### *Behavioral and Performance Measures*

- *Valid:* A test that measures the abilities it claims to measure is said to be valid.
- *Reliable:* A test that provides consistent results from one testing to another is reliable.

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- *Standardized:* A test that is given and scored by the same methods and criteria for all test-takers is said to be standardized.
- **Operational definitions:** Definitions stated solely in terms of the operations or procedures used to produce or measure a phenomenon.
- **Cognitive neuroscience:** Study of cognitive development that links brain processes with cognitive ones.

## Evaluating Quantitative and Qualitative Research

### Basic Research Designs

#### *Case Studies*

- **Case study:** Study of an individual.

#### *Ethnographic Studies*

- **Ethnographic study:** In-depth study of a culture which uses a combination of methods including participant observation.
- **Participant observation:** Research method in which the observer lives with the people or participates in the activity being observed.

#### *Correlational Studies*

- **Correlational study:** Research design intended to discover whether a statistical relationship between variables exists.
- *Correlation:* A statistical relationship between two or more variables.  
*Variables:* Phenomena that change or vary among people or that can be varied for purposes of research.  
*Positive correlation:* Variables that are related increase or decrease together.
- *Negative correlation:* Variables have an inverse relationship; as one increases, the other decreases.

#### *Experiments*

- **Experiment:** Rigorously controlled, replicable procedure in which the researcher manipulates variables to assess the effect of one on the other.

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- *Replicate*: Repeating an experiment in exactly the same way with different participants to verify the results and conclusions.

### Groups and Variables

- **Experimental group**: In an experiment, the group receiving the treatment under study.
- *Treatment*: The phenomenon the researcher wants to study.
- **Control group**: In an experiment, the group of people who do not receive the treatment whose effects are to be measured.
- *Treatment groups*: In an experiment, groups that each receive one of the treatments under study.
- *Double-blind procedure*: An experiment in which neither the participants nor those running the experiment know who is receiving the treatment.
- *Placebo*: An inert treatment.
- **Independent variable**: In an experiment, the condition over which the experimenter has direct control.
- **Dependent variable**: In an experiment, the condition that may or may not change as a result of changes in the independent variable.

### Random Assignment

- **Random assignment**: Assigning the participants in an experiment to groups in such a way that each person has an equal chance of being placed in any group.
- *Confound*: Contamination of an experiment by unintended differences between the groups.

### Laboratory, Field, and Natural Experiments

- *Laboratory experiment*: Experiment in which the participants are brought to a special place where they experience conditions manipulated by the experimenter.
- *Field experiment*: A controlled study conducted in an everyday setting, such as home or school.
- *Natural experiment*: Study comparing people who have been accidentally —assigned to separate groups by circumstances of life (a correlational study).

### Developmental Research Designs

### Cross-Sectional, Longitudinal, and Sequential Studies

- **Cross-sectional study:** Study design in which people of different ages are assessed on one occasion.
- **Longitudinal study:** Study designed to assess changes in a sample over time.
- **Sequential study:** Study design that combines cross-sectional and longitudinal techniques.

### Ethics of Research

○ *informed consent* ○ *avoidance of deception* ○ *avoidance of harm and loss of dignity* ○ *privacy and confidentiality* ○ *right to decline or withdraw* ○ *correction of any undesirable effects*

*Three ethical principles that guide researchers in resolving ethical dilemmas:*

□ *beneficence* □ *respect* □ *justice*

# Suggested Lecture Openers

## 2.1 Alcohol Abuse in College Students

**Objective:** To illustrate the concept of individuals being active and/or reactive in their own development.

**Time Necessary:** 20 to 30 minutes, depending on amount of class participation

**Directions:** Developmental scientists differ in their beliefs concerning how active or reactive individuals are in shaping their own development. You can conduct this activity to extend the textbook's discussion of active and reactive factors by using the example of alcohol abuse by college students. Have the class brainstorm a list of all the possible reasons why a college student might begin to abuse alcohol. Write all responses on the board without critiquing or discussing them until the list is complete. When complete, have the students discuss each response and categorize it according to whether it falls in the mechanistic (reactive) model of development or the organismic (active) model. Some of the responses may have elements of both models.

**Wrap-Up:** By reiterating the definitions of the two models, aid students in more fully understanding the concepts.

## 2.2 Demonstrating Classical Conditioning and Operant Conditioning

**Objective:** To provide a practical example of the terminology of traditional classical conditioning.

**Time necessary:** 10 minutes

**Directions:** You will need a sound recording of a well-known movie theme and the means to play it. The —shark attack theme from *Jaws* works well, although some students may not be familiar with this 1975 classic. Numerous other film themes are downloadable from the Internet. Ask students to close their eyes and relax while the recording begins playing. It is possible to discern almost immediately from facial expressions those students who have been conditioned to associate this music with a killer-shark attack. Discussion then leads to students identifying the conditioned stimulus and the conditioned response.

**Wrap-Up:** Have students brainstorm for more contemporary examples from other movie themes or media that might have the same effect.

**Reference:**

Smith, R. A. (1988). JAWS: Demonstrating classical conditioning. In Makosky, V. P., Whittmore, L. G., & Rogers, A. M. (Eds.). *Activities handbook for the teaching of psychology* (Vol. 2). Washington, DC: APA.

One of the best ways to demonstrate operant conditioning is to use the video clip from **The Big Bang Theory**. This link [http://www.youtube.com/watch?v=qy\\_mIEnnlF4](http://www.youtube.com/watch?v=qy_mIEnnlF4) will provide the connection. It is an excellent short clip with great humor. The students can enjoy and then discuss the process and ethical aspects.

### 2.3 Using Riddles to Introduce the Scientific Method

**Objective:** To introduce logical thinking and problem-solving skills and to relate them to the scientific method.

**Time necessary:** 15 minutes

**Directions:** Science has often been likened to a process of puzzle solving. Joe W. Hatcher Jr. has developed a fun and useful method of engaging students to think —scientifically— by using riddles for a class opener on scientific thinking. Students are told that the instructor will only answer yes/no questions. The students' task is to solve the following riddles:

1. You are walking in the desert and find a man lying face down with a pack on his back, dead. How did he die? (Answer: His parachute failed to open.)
2. A man walks into a bar and asks the bartender for a glass of water. The bartender reaches under the bar and pulls out a large pistol pointing it right at the man. The man says —thank you— and turns and walks out of the bar. Why did the man say, —thank you—? (Answer: He had the hiccups.)
3. A man is found shot to death in a room with a table, four chairs, and 53 bicycles. Why was he shot? (Answer: He was cheating at cards by having an extra ace; there are 52 Bicycle playing cards in a normal deck).
4. A man is at work and wants to go home. However, he will not go home because a man wearing a mask is waiting there for him. What does the first man do for a living? (Answer: He's a baseball player standing on third base.)

After the riddles have been solved the instructor can point out that both scientific thinking and riddle solving attempt to make sense of data that may initially appear contradictory.

**Wrap-Up:** Several other lessons can emerge from this exercise including:

1. It is often important to view a problem from more than one perspective.

2. Prior assumptions concerning data can be dangerous.
3. Yes/no questions can yield highly useful information.
4. Sometimes details that do not fit expected patterns are highly important.
5. Persistence is important in problem solving.
6. Simple answers are sometimes overlooked by focusing on more complex answers.
7. Science can sometimes be frustrating, exciting, and perhaps even fun!

**Reference:**

Hatcher Jr., J. W. (1996). Using riddles to introduce the process and experience of scientific thinking. In Ware, M. E., & Johnson, D. E. (Eds.). *Handbook of demonstrations and activities in the teaching of psychology* (Vol. I). Mahwah, NJ: Erlbaum.

## **2.4 Research Ethics: A Historical Example**

**Objective:** To illustrate the APA Ethical Guidelines and to provide some historical context for why these guidelines exist.

**Time to complete:** 15–20 minutes, variable

**Directions:** The Tuskegee experiment provides an excellent historical example of research ethics gone awry. Begin by explaining the historical facts (see websites for resources) and then show a short excerpt of *Miss Evers' Boys*, an HBO documentary of the Tuskegee story. Other film possibilities include *And the Band Played On* or *Philadelphia*, both of which discuss the AIDS crisis and medical research.

**Wrap-Up:** Another variation on this topic would be to have students work together in small groups to locate and present a film or TV example of ethical violations.

## **2.5 Observational Learning**

**Objective:** To discuss how observational learning occurs across the life span.

**Time to complete:** 5–10 minutes



**Directions:** Have the class think about each of the following situations and how observational learning with modeling and reinforcement helped to develop those behaviors:

- Infancy—A baby watches another child have a temper tantrum and then displays similar behaviors at a later date. The tantrum may have been reinforced due to attention or to obtaining an object that was desired by the child.
- Early childhood—A young child says a really bad word. —Naughty words are often overheard from parents, television, or peers. What might happen when the word is said? How does the reaction either reinforce or stop the use of the word in the future?
- Middle childhood—A child sits in the car and pretends to drive. How does the child know how to turn the steering wheel, push the pedals, and make sounds? What is reinforcing about that behavior?
- Adulthood—Have you ever walked into a party or class and not known what to do? Most likely, you began to do what the other persons in room were doing. If they were dressed casually, for example, you may have quickly removed a jacket, tie, or other more formal pieces of clothing. This reduced the anxiety and became reinforcing.

**Wrap-Up:** This exercise is also a way to reinforce developmental periods and can be modified and used throughout the course.

## 2.6 Teaching about Sampling using M&Ms™

**Objective:** To demonstrate several key research concepts.

**Time to complete:** 15–20 minutes

**Directions:** Bring to class a small package of plain M&Ms (snack size) for each student. If students are told to bring calculators to class, this lesson will be easier for them. Students should be told that their M&Ms are an —intact random sample. Instruct them to open the package and count the contents by color. Instruct them that they can eat their research subjects once they count them! Have them convert their raw data into percentages. Ask each student to generate a hypothesis about the distribution of plain M&Ms based on his or her sample. Then have students form pairs or small groups and pool their data. Finally, pool the data for the entire class.

Typically, this demonstration is an effective way to show how larger samples are more accurate. Mars Inc. has published information stating that plain M&Ms are 30% brown, 20% each red and yellow, and 10% each for green, orange, and blue. Your students can see if they find evidence that these proportions are still accurate or have been changed.

This is also a good exercise to help students understand research concepts such as hypotheses, the scientific method, and generalization of results.

**Wrap-Up:** Have students discuss how they could improve this research project so that their results are more meaningful. Lead them in a discussion of possible problems with the research design.

**Reference:**

Adapted from: Smith, R. A. (1999). A tasty sample(r): Teaching about sampling using M&Ms. In Benjamin, L. R., Nodine, B. F., Ernst, R. M., & Broeker, C. B. (Eds.), *Activities handbook for the teaching of psychology* (Vol. 4). Washington, DC: APA.

## Critical Thinking Exercises

### 2.1 Application of Theories to School Violence Problem

**Objective:** To apply developmental theories to a well-known problem for students to better grasp the basic principles of the major developmental theories

**Type/Length of activity:** Class discussion

**Time to complete:** 20–30 minutes, depending on the amount of class participation

**Directions:** Present a question to the class such as "Why have we seen so many incidents of school violence in the last decade?" Lead the students in applying all five theoretical viewpoints (psychoanalytic, learning, cognitive, evolutionary/sociobiological, and contextual) from the textbook to this problem. Have students make suggestions regarding how they think each viewpoint would attempt to explain this phenomenon.

### 2.2 Testing Proverbs

**Objective:** To encourage students to generate a hypothesis, identify a theory, and formulate a possible design to test the hypothesis.

**Type/Length of activity:** Small group activity

**Time to complete:** 45–50 minutes

**Directions:** List the following proverbs on the board. Have the students, in small groups, formulate a testable hypothesis based on the meaning of the proverb. Have them discuss what theory you think would best support their hypothesis and, if time permits, discuss how they might design a study to test the hypothesis.

- Like father, like son.
- One bad apple spoils the barrel. □ You can't teach an old dog new tricks. □ Blood is thicker than water.
- Opposites attract.

- The early bird catches the worm.

**References:**

Famous Proverbs: <http://www.corsinet.com/braincandy/proverb.html>

Bartlett's Book of Quotations: <http://www.bartleby.com/100>

## 2.3 Discussing Ethical Abuse in Research

**Objective:** To promote critical thinking skills by exploring and critiquing some well-known psychological research studies regarding possible ethical violations.

**Type/Length of activity:** Small group activity

**Time to complete:** 45–50 minutes

**Directions:** Read each of the following summaries of famous studies in psychology to the class. After each one, have the students examine the research for ethical violations. Discuss whether or not each study could be conducted today in light of modern ethical guidelines governing research, and why or why not. Ask them how each study could be redesigned to eliminate or minimize the ethical problems?

Example 1: ***Little Albert.*** Watson and Rayner (1920) taught a young boy named Albert to become afraid of a gentle white rat. At the beginning of the study, Albert was unafraid of the white rat and played freely with the animal. While he was playing with the rat, the experimenters frightened the child by making a loud noise behind him. Albert was startled and began to cry. Thereafter, he avoided the rat and would cry whenever it was brought close to him. Once this fear was learned, Watson and Rayner found that fear could also be elicited by showing Albert any furry object. He became frightened of many other furry objects such as a fur coat, a dog, a rabbit, and a furry face mask.

Example 2: ***The Tuskegee Syphilis Study.*** Six hundred low-income African-American males, 400 of whom were infected with syphilis, were monitored for 40 years. The purpose of the study was to examine the long-term effects of syphilis. The subjects of the study were 400 African-American males, who were primarily poor sharecroppers. These men all had syphilis, but they were unaware of it. They were also unaware of the true nature of the experiment. The most horrifying aspect of the experiment was that, even in the 1950s, when penicillin was proved to be effective at curing syphilis, the researchers did not treat the men's syphilis. They even prevented other doctors who saw the participants from treating the syphilis. As many as 100 men may have died from complications of their untreated syphilis.

Example 3: ***NIH-Funded Studies.*** In the period of time between 1945 and 1966, the U.S. National Institutes of Health funded 2,000 research projects, and none of them used informed

consent. An article written by Henry Beecher that appeared in the June 16, 1966, issue of the *New England Journal of Medicine* exposed many clinical research trials that had been funded by the government that were highly unethical. One of the examples concerned mentally retarded children at a state school who were infected with hepatitis virus. The researcher who carried out this experiment eventually became head of the pediatrics department at New York University. He felt that the experiment was justified, because finding a cure for hepatitis would help many more people. In each of Beecher's examples, clinical trials were done on what some may consider —marginall members of society, such as the poor, developmentally disabled, and senile. These —marginalized members of society were unable to decide for themselves whether or not to participate in these trials.

For further information on unethical research practices, as well as examples that can be discussed in class, visit the following Internet sites:

The History and Importance of Informed Consent in Clinical Trials

<http://serendip.brynmawr.edu/biology/b103/f01/web2/kiefer.html>

Using Human Subjects for Medical Research

<http://www.gulfwarvets.com/cristie.htm>

## 2.4 Mechanistic or Organismic Perspective

**Objective:** To help the students determine whether their underlying perspective is mechanistic or organismic.

**Type/Length of activity:** Short survey followed by discussion

**Time to complete:** 15–20 minutes

**Directions:** Ask students to choose which best describes their responses to the questions below. The answers can then be totaled to determine the class perspective.

If you are sick, you:

- want the doctor to check you and give you a pill that will cure the problem without having to do anything else. (Mechanistic)
- want to be actively involved since you know that your attitude, stress levels, and knowledge of your illness will help or hinder in your recovery. (Organismic)

If you want a —happy child, you:

- condition the child to smile in order to obtain a reward. (Mechanistic)
- teach the child that smiles make others feel better and then the other persons may be nicer to the child. (Organismic)

Help the students see that the mechanistic perspective views people as being like machines that respond to the pill or the conditioning and that the organismic view sees people as interactive, involved beings whose responses are holistic.

## 2.5 Understanding Correlations

**Objective:** To demonstrate correlations by producing a scatter gram of two related variables.

**Type/Length of activity:** Class activity

**Time to complete:** 20–30 minutes

**Directions:**

- Have each student in the class answer on a piece of paper (to avoid any problems with privacy) what size shoe and what size ring he or she wears.
- Plot the variables on a piece of graph papers with one axis being for shoe size and the other axis being for ring size.
- Show how the perfect relationship would be a 1.0, but in reality the relationships have variability.
- If you have access to quick statistical analysis, the actual correlation coefficient could be obtained and discussed for meaning.

Focus a follow-up discussion on how correlations are not causative. For variations on this activity, you could compare the stock market with dress length, cholesterol with consumption of oatmeal, or one of many other correlations that, in the media, are reported to exist.

## 2.6 Does the USA Still Believe in Freudian Ideas?

**Objective:** To introduce Freud's psychoanalytic theory.

**Type/Length of activity:** Class activity and discussion

**Time to complete:** 20–30 minutes

**Directions:** The journal *Teaching of Psychology*, Vol. 21 (2), April 1994, 93–95, published a Freudian quiz you can copy and give to your students in class. The students can score their psychoanalytical attitudes and discuss what their scores mean.

The following are some popular interpretations Freudian ideas that can be introduced prior to a lecture about psychoanalysis that explores their validity:

- If a child is not toilet-trained by age 2, there is concern about the child's personality and ability to function. (anal fixation)

- If a child continues to suck his or her thumb or a pacifier after infancy, the child is likely to have problems controlling emotions. (oral fixation)
- If a young man still lives with his mother at age 30, he is too attached to his mother and would not make a good mate. (Oedipal complex)
- A slip of the tongue is more truthful than ordinary conversation. (unconscious motives)

## **Essay Questions**

### **2.1 What are the major differences between quantitative and qualitative research? What are some examples of each?**

Sample Answers:

Quantitative research deals with objectively measurable data and is often used by behaviorists in research.

Examples of quantitative research in developmental psychology include measuring physical growth in children, size of children's vocabulary at various ages, and fluctuations in intelligence scores over time.

Qualitative research deals with soft data about the nature or quality of subjective experiences, feelings, or beliefs. Typical research in developmental psychology using qualitative methods might include studies of different styles of problem solving, advances in children's cognitive complexity as they mature, and older adults' fears and anxieties about aging.

### **2.2 Explain why each of the following findings from correlational studies is an example of the maxim “correlation does not equal causation.” Suggest possible alternative explanations for the findings.**

1. In large urban areas more violence is reported on days with high ice-cream sales.
2. Children with larger feet spell better.
3. In areas of the South, counties with higher divorce rates generally have lower death rates.
4. Nations that add fluoride to their water have a higher cancer rate than those that do not add fluoride.

Sample Answers:

1. Heat is the third variable involved in this study. On days with higher temperatures, more violence is reported and ice cream sales go up.
2. Older children have larger feet and older children usually spell better.
3. Couples who are older are less likely to divorce and more likely to die than are those from counties with younger demographics.

4. Those nations that add fluoride to their water are generally more health-conscious, and a greater percentage of their citizens live to develop cancer, a disease that increases in likelihood with age.

## Activities

### 2.1 Which Perspective Is Best?

Due date: \_\_\_\_\_

**Objective:** To encourage class interaction and to learn advantages and disadvantages of theoretical perspectives.

**Type/Length of activity:** Small group activity

**Time to complete:** 20 minutes in class to get started, 3–4 hours out of class, 10 minutes for in-class debate

**Directions:** In this activity, you will represent one of the five major perspectives discussed in Chapter 2 of your textbook. Your job will be to develop a convincing case that yours is the best perspective to adopt when trying to understand human development. You will present your case in two ways: 1) a paper you write individually, and 2) a debate in which you will participate as a member of a group.

Your class has been divided into groups. Your group is researching the:

\_\_\_\_\_ Psychoanalytic Perspective      \_\_\_\_\_ Cognitive Perspective

\_\_\_\_\_ Learning Perspective      \_\_\_\_\_ Evolutionary/Sociobiological Perspective

\_\_\_\_\_ Contextual Perspective

#### Make a Plan:

Each member of the group needs to become familiar with all aspects of your assigned perspective. Because there is a great deal to learn about each perspective, your group will benefit if you create a strategy to divide the research tasks among members and share the results when you have all gathered your information.

#### Prepare a Paper:

Turn in an independent paper that summarizes the strengths and weaknesses of your assigned perspective. This paper is due at the time of the debate.

**Specifics:** Your paper should:

- include an introduction and conclusion
- be three to five pages long, typed, double-spaced, and have one-inch margins
- include a cover sheet listing your name, the title of your paper, your ID#, course name and section number, and the date
- reference all your sources using APA format **Prepare for the Group Debate:**

Meet with the members of your group to discuss what each member has learned. Make notes of the strongest points of your perspective. Decide whether one person will do all the talking or whether the group will share the presentation.

**Presentations:**

Each group will get five to seven minutes to present the strongest points of its assigned perspectives. Listen to each presentation and consider how the perspective described matches your own views.

**Class Vote:**

After all the presentations are finished, each member of class will vote on the perspective that seems the most useful to psychology. Each member will also participate in a second vote for the perspective that most closely matches his or her personal perspective.



## 2.2 Which Perspective Is Closest to Your Own?

**Due date:** \_\_\_\_\_

**Objective:** To consider which perspective on human development is closest to your own.

**Type/Length of activity:** 5–6 page paper

**Time to complete:** Variable

**Directions:** The perspectives we will consider for this paper are:

Psychoanalytic Perspective

Learning Perspective

Cognitive Perspective

Evolutionary/Sociobiological Perspective

Contextual Perspective

### What do I turn in?

You will turn in a paper that briefly summarizes each perspective and concludes with an analysis of your own perspective.

**Specifics:** Your paper should:

- be five to six pages long
- begin with an introduction
- include at least one page of summary for each perspective
- include at least two pages describing your perspective
- end with a concluding paragraph
- be typed, double spaced, and have one-inch margins.
- have a cover sheet that lists your name, the title of your paper, your ID#, course name and section number, and the date
- reference all your sources using APA format

## 2.3 Ethics in Research

**Due date:** \_\_\_\_\_

**Objective:** To increase awareness about ethical issues when conducting research.

**Type/Length of activity:** Class debate

**Time to complete:** Small group time for preparation and then in-class time to debate

**Directions:** Your instructor will assign you to debate the ethical acceptability of one of the following research proposals:

Proposal 1: This study will investigate a potential vaccination for the sexually transmitted disease herpes by giving monkeys the experimental vaccine and then injecting them with a herpes virus.

Proposal 2: This study will investigate homophobic attitudes and behaviors by distributing questionnaires on your college campus. The information, which should be kept confidential, will be used in diversity and awareness workshops on campus.

Proposal 3: This study will investigate reactions to abortion by interviewing college women immediately after an abortion and then once every three months for two years. Because of the follow-up interviews, the women's names will be required but kept confidential.

**Write a Reaction Paper:**

Pretend that you are a member of the Institutional Review Board for your university or college. Write a one- to two-page paper on your reaction to the research described in your assigned proposal. What additional information would you like to know? What are the risks and costs of the research? What are the potential benefits? Would you allow the research to continue? Why or why not?

**Plan Your Presentation:**

Meet with the other students on your side of the argument. Share your ideas and determine your strongest arguments. Decide who will give the presentation and make some notes.

**Class Debate:**

Each side will be given five minutes to present its side of the argument. Those in favor of allowing the research will argue first, and those against the research will respond. There will be a three-minute break after the two sides have presented their cases. During this three-minute break, the rest of the class will write individual one-page reaction papers describing their own position on the issue. The two groups will spend the three minutes outlining their rebuttal statements. Each group will then have three minutes to give a rebuttal statement, with those arguing for the research presenting first.

**Class Vote:**

When the debate has ended, the class will vote on whether to accept the proposal (and allow the research to occur) or to reject the proposal.

## Activity 2:4 Read an Ethnography

Due date: \_\_\_\_\_

**Objective:** To encourage cross-cultural explorations of human development and to identify and apply theoretical perspectives and concepts.

**Type/Length of activity:** 8–10 page paper

**Time to complete:** Variable

**Directions:** Read one of the following ethnographies or a different one approved by your instructor. Then identify a specific developmental theme, such as birth rituals or customs, gender schemas, attitudes towards work, socialization of infants, etc. After describing the theme you've chosen, identify in your paper, how the culture you studied is similar or dissimilar to traditions with which you are more familiar. Be aware of ethnocentrism and avoid evaluative comments.

Briggs, J. L. (1970). *Never in anger: Portrait of an Eskimo family*. Cambridge, MA: Harvard University Press.

Brown, K. C. (2001). *Mama Lola: A vodou priestess in Brooklyn, updated and expanded edition*. Berkeley and Los Angeles: University of California Press.

Brown, N. M. (2007). *The far traveler: Voyages of a Viking woman*. Orlando, FL: Harcourt Press.

Davis, B. M. (2004). *Growing up in Mississippi*. West Conshohocken, PA: Infinity Publishing.

Engineer, A. A. (2008). *The rights of women in Islam*. Elgin, IL: New Dawn Press.

Gruenewald, M. M. (2005). *Looking like the enemy: My story of imprisonment in Japanese American Internment camps*. Troutdale, OR: New Sage Press.

Kerns, V. (1997). *Women and the ancestors: Black Carib kinship and ritual* (2nd ed.). Urbana, IL: University of Illinois Press.

Mernissi, F. (1987). *Beyond the veil: Male-female dynamics in modern Muslim society*, rev. ed. Bloomington, IN: Indiana University Press.

Nanda, S. (1998) *Neither man nor woman: The Hijras of India* (2nd ed.) Belmont, CA: Wadsworth Publishing.

Shachtman, T. (2007). *Rumspringa: To be or not to be Amish*. New York, NY: North Point Press.

Shostak, M. (1990). *Nisa: The life and words of a !Kung woman*. Cambridge, MA: Harvard University Press.

Turnbull, C. (1988). *The forest people*. Magnolia, MA: Peter Smith.

Udall, L. (1991). *Me and mine: The life story of Helen Sekaquaptewa*. Tucson, AZ: University of Arizona Press.

Woodward, C. (2004). *The lobster coast: Rebels, rusticators, and the struggle for a forgotten frontier*. New York, NY: Viking Adult.

# Activity Appropriate for Education Majors:

## Activity 2:5 A Comparison of Piaget and Vygotsky

Due date: \_\_\_\_\_

**Objective:** To understand the differences and similarities between the theories of Jean Piaget and Lev Vygotsky.

**Type/Length of activity:** 2–3 page paper

**Time to complete:** 2–3 hours

**Directions:** Using your text and other sources if necessary, compare and contrast Piaget and Vygotsky concerning the following:

1. The importance, in each theory, of innate cognitive abilities.
2. The importance, in each theory, of social interaction.

Speculate about different activities in the classroom that would be appropriate for each theory. For example, which theory would propose more hands-on activities and independent work? Which would propose more peer tutoring?

### Specifics:

Your paper should:

- be two to three pages long
- begin with an introduction and end with a concluding paragraph
- be typed, double spaced, and have one-inch margins
- have a cover sheet that lists your name, the title of your paper, your ID#, course name and section number, and the date
- reference all your sources using APA format

## Observation/Lab/Interview Project

### Activity 2.6: Interview with a Scientist

Due Date: \_\_\_\_\_

**Objective:** To find out more about the scientific method.

**Type/Length of activity:** Interview, with 2–3-page summary of questions and answers

**Time to complete:** 1–2 hours, but variable

**Directions:** Find a local scientist, such as a teacher at a local college or university, or a researcher at a chemical plant. With this person's permission, ask about an experiment or other research that he or she has completed. Ask the following questions:

1. What was your hypothesis?
2. What was your independent variable?
3. What was your dependent variable?
4. What were the characteristics of your participants (people or animals)?
5. How did you select your participants?
6. What was your method?
7. How did you analyze your results?
8. What were your conclusions?

Summarize the scientist's answers in a short paper.

**Specifics:** Your paper should:

- be two to three pages long
- be typed, double spaced, and have one-inch margins
- have a cover sheet that lists your name, the title of your paper, your ID#, course name and section number, and the date
- reference all your sources using APA format

## **Ideas for Independent Study**

1. Select an article from your local newspaper about a person who interests you (an actor, musician, artist, someone accused of a crime, etc.). Choose two of the theories described in this chapter and try to imagine how an adherent of each of these theories might view the person described in the article. Think about how each theory might explain the motivations for the person's accomplishments, deeds, or misdeeds. For example, how might a behaviorist explain the reasons a person committed a crime? Would a psychoanalytically oriented theorist focus on the same or different motivating factors? After you make this comparison,

decide which theory you think would be most useful in helping you understand the situation. Why do you think this theory is the most helpful?

2. Find two articles that report on studies of the same topic, but that used different research methods. For example, you might find one study of the development of children's counting skills that used a cross-sectional design and another that used a longitudinal design. Or you might find one study in which infants' attachment to their mothers was rated through observational techniques, and another that used parental reports. Compare the advantages and disadvantages of the methods used in each of the two studies. Then try to think of still another research method that could be used to study the same topic. What would be gained by using this third method? What would its disadvantages be?
3. Participate in an online research project and write a two- to three-page summary about the study and your reaction to being in the study. Include information given to you about the purpose of the study, the theoretical underpinnings of the study, the methods used to collect data, any ethical concerns you have about the study, and your personal reaction to being in the study.

## Resources Available In Connect

The following are a selection of various resources available in McGraw-Hill's Connect, which can be used in class or assigned as homework. For more about Connect, please visit:

<http://successinhighered.com/psychology/connect/>.

Activity Title	Activity Type	Learning Objective
Psychoanalytic Approach	Concept Clip	2.2: Summarize the main theories of human development.
Classical Conditioning	Concept Clip	2.2: Summarize the main theories of human development.
Operant Conditioning	Concept Clip	2.2: Summarize the main theories of human development.
Research Methods for Studying Infants	Video 1.29 min	2.3 Describe the methods developmental researchers use to collect data and the advantages and disadvantages of each.
Challenges of Conducting Research on Adolescents	Video 1.07 min	2.3 Describe the methods developmental researchers use to collect data and the advantages and disadvantages of each.

Scientific Method	Concept Clip	2.3: Describe the methods developmental researchers use to collect data and the advantages and disadvantages of each.
Independent and Dependent Variables	Concept Clip	2.3: Describe the methods developmental researchers use to collect data and the advantages and disadvantages of each.
Ethical Issues in Studying Infants	Video 4.11 min	2.4 Explain ethical guidelines for researchers who study people.

## Audio Visual Resources

***B. F. Skinner: A fresh appraisal.*** (Davidson Films, 1999, DVD, 41 min.)  
Examines the life, theory, and myths associated with Skinner.

***Erik H. Erikson: A life's work.*** (Davidson Films, 1991, DVD, 38 min.)  
Combines biographical information with theoretical proposals to demonstrate the relationship between the life of a theorist and the work he produced.

***Authentic assessment: Observation of young children II: Making the connection.***  
(Magna Systems, 2004, VHS or DVD, 23 min.)  
Teachers and education coordinators demonstrate the system that they use to collate the observational data on young children.

***Piaget's developmental theory: An overview.*** (Davidson Films, 1989, DVD, 25 min.)  
Presents an overview of Piaget's theory including archival footage of Piaget and recent footage of David Elkind working with children.

***Theories of human development.*** (Insight Media, 2002, DVD, 30 min.)  
Highlighting major theories of human development, this lecture series discusses Sigmund Freud's psychodynamic theory, Erik Erikson's psychosocial theory, the integrated attachment theory developed by John Bowlby and Mary Ainsworth, Albert Bandura's social-learning theory, Jean Piaget's cognitive-developmental theory, and Lev Vygotsky's cognitive-mediation theory.

***Vygotsky's developmental theory: An introduction.*** (Davidson Films, 1994, video, 28 min.)  
Introduces the life, vocabulary, and concepts of Lev Vygotsky.

**Multimedia Courseware for Child Development**  
**Charlotte J. Patterson, University of Virginia**



This video-based two-CD-ROM set (ISBN 0-07-254580-1) covers classic and contemporary experiments in child development. Respected researcher Charlotte J. Patterson selected the video and wrote modules that can be assigned to students. The modules also include suggestions for additional projects as well as a testing component. Multimedia Courseware can be packaged with the text at a discount.

## Suggested Readings

Crain, W. (2005). *Theories of development: Concepts and applications* (5th ed.). Upper Saddle River, NJ: Prentice Hall. This is an excellent introductory text for theories of human development designed to be used in upper-level theory classes. It provides short, readable chapters on all the major theorists.

Denzin, Norman K., & Lincoln, Yvonna S. (2005). *The SAGE handbook of qualitative research, 3rd ed.* Thousand Oaks, CA: Sage Publications.

Includes theory and practice in qualitative research methods. Also includes sections on how qualitative inquiry can be used to address issues of social justice in this new century.

Harris, J. R. (1999). *The nurture assumption: Why children turn out the way they do.* New York: Touchstone Books.

This book received much popular media attention with the thesis that parents matter less than peers do in terms of developmental influences. It would be useful when discussing or presenting the heredity/environment arguments.

Caution: The author's viewpoint is controversial and not widely accepted by scholars and researchers in the field.

Miller, Scott A. (2007). *Developmental research methods.* Thousand Oaks, CA: Sage Publications.

This edition provides an overview of methods to prepare students to carry out, report on, and evaluate research on human development, with a focus on the whole life span.

Shaughnessy, J. J. (2008). *Research methods in psychology, 8th ed.* New York: McGraw Hill.

This book presents research methodology in a clear straightforward manner. The author's approach is to guide their readers through the process of thinking about and conducting psychological research and introduce research methods in the context in which the research is done by incorporating many examples of "real" research methods and findings.

## Web Resources

**Gallup polls** <http://www.gallup.com/>

This is a useful site for obtaining results of survey research and is searchable by topic.

**The Jean Piaget society** <http://www.piaget.org/>

—The Society's aim is to provide an open forum, through symposia, books, and other publications, for the presentation and discussion of scholarly work on issues related to human knowledge and its development. The Society further encourages the application of advances in the understanding of development to education and other domains.¶

**Open Directory:**

[http://www.dmoz.org/Science/Social\\_Sciences/Methodology/](http://www.dmoz.org/Science/Social_Sciences/Methodology/)

A listing of Internet resources for information related to research in social science.

**Psychology demonstrations, tutorials & other “neat stuff”**

<http://www.uni.edu/walsh/tutor.html>

This website has classroom demonstrations, links, and tips for teaching of major topics in psychology, including research methods.

**Qualitative methods text** <http://www.ship.edu/~cgboeree/qualmeth.html>

This is an e-text designed for a course on qualitative methods. It has useful links to information on qualitative methodologies available on the Internet.

**Research methods knowledge base** <http://www.socialresearchmethods.net/kb/>

This is an online textbook providing information on social science research. It is probably more detailed than necessary for an introductory course, but students may find it helpful for more information on specific research concepts.

**Tuskegee syphilis study** <http://www.med.virginia.edu/hs-library/historical/apology/index.html>

This is an historical example of unethical research. This study also provides an example of longitudinal research.

**U.S. Census Bureau** <http://www.census.gov/>

This is an excellent site for obtaining government statistics housed by the Census Bureau.

**Vygotsky** [http://projects.coe.uga.edu/epltt/index.php?title=Vygotsky's\\_constructivism](http://projects.coe.uga.edu/epltt/index.php?title=Vygotsky's_constructivism)  
Online resources for Lev Vygotsky, particularly topics of interest to teachers.  
Includes links to other online resources.

## **Web Resources for Professional Organizations**

### **American Association of Marriage and Family Therapists**

<http://www.aamft.org/>

Although this organization is geared primarily toward family therapists, it does have useful clinical updates on issues of relevance for human growth and development. Additionally, there is an online directory for locating a licensed family therapist.

### **American Psychological Association** <http://www.apa.org/>

This is an excellent resource for current information. Of special interest are the sections devoted to children.

### **The Association for Psychological Science** <http://www.psychologicalscience.org/>

This organization is devoted primarily to scientific study in psychology.

### **American Sociological Association** <http://www.asanet.org/>

There are numerous links here to current information and research findings. This is a good place for information on family-related issues.

### **Council of Teachers of Undergraduate Psychology**

<http://www.am.org/cupp/index.html>

One helpful feature of this site is that past newsletters are archived.

### **National Council of Family Relations** <http://www.ncfr.org/>

One of the leading research-oriented organizations for family studies professionals, educators, and policy makers.

### **Psychological societies on the Internet**

<http://psych.hanover.edu/Krantz/psy.html>

This is a comprehensive list of both national and international psychology-related societies.

### **Society for Research in Child Development** <http://www.srkd.org/>

This is one of the best sites to locate current research for human growth and development.

### **The Society for the Teaching of Psychology (APA division 2)**

<http://teachpsych.lemoyne.edu/>

One of the valuable resources available at this site is that it offers syllabi from professors teaching similar courses. This may be especially useful for new

instructors. Also available are bibliographies for diversity and gay/lesbian issues, as well as a listing of introductory textbooks.